

CABLE AND THE LIKE PROTECTION AND GUIDE DEVICE

This patent application includes a claim of foreign priority to prior filed Japanese Patent Application 2003-129240 filed May 7, 2003.

Technical Field to Which the Invention Pertains

5 The present invention relates to a cable and the like protection and guide device, and more specifically relates to a device suitable for accommodates a cable and the like such as cable(s) or hose(s), which supplies a movable member of a machine tool electric power or energy of compression air and guiding and supporting the cable and the like stably and reliably during the movement of the
10 movable portion.

Related Art

As such a cable and the like protection and guide device, a device has been known which has link bodies each having a pair of side plates and connecting rods spanned across said side plates on an outer circumferential side and an inner
15 circumferential side and in which said link bodies are pin-connected to each other adjacent link bodies and are ~~articulable~~ articulable about pins. Each link body includes a vertical partitioning member and a lateral partitioning member. The vertical partitioning member is disposed so as to span across the connecting rods and is fixed thereto. The lateral partitioning member is disposed so as to span
20 across the side plates and vertical partitioning members, and the vertical partitioning members, respectively, and is fixed thereto. A cable and the like are inserted into a an accommodation space, which is formed in link bodies by these vertical

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Each of the link bodies 11 has side plates 21 and connecting rods 22, 23.

The side plates are disposed in parallel with a space. A connecting rod 22

(referred to as an inner circumferential side connecting rod to differentiate from the other) is disposed between the side plates 21 so as to span across the inner

5 circumferential side of the side plates 21. The an inner circumferential side connecting rod 22 and the side plates 21 are made of a plastic molded product and are integrally injection-molded. A connecting rod 23 (hereinafter referred to as an outer circumferential side connecting rod) is also made of a plastic molded product, and is disposed between the side plates 21 so as to span across the
10 bending inner circumferential side of the side plates 21. However, this an outer circumferential side connecting rod 23 is removably attached to the side plates 21.

The side plate 21 has a cocoon shape when viewed from the side. A front portion of the side plate 21 is provided with a pin hole 25. On the other hand on
15 a rear portion of the side plate 21 is integrally formed a pin having a diameter corresponding to the pin hole 25. The front inside surfaces of the side plates 21 are provided with stepped walls 27. The rear edge of the stepped wall 27 forms a narrow cylindrical surface or an arc surface having the center axis in common with the pin hole 25. The rear outside surfaces of the side plates 21 are provided
20 with stepped walls 28. The front edge of the stepped wall 28 forms a narrow cylindrical surface having the center axis in common with the pin hole 26. The distance between the inside surfaces of the stepped walls 27 is slightly wider than

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